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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,026	02/25/2004	Hans-Jurgen Nolte	PO-8004/LeA 36,450	7133

157 7590 07/31/2006

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EXAMINER	
SERGENT, RABON A	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/789,026	NOLTE ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-9,24 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-9,24 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. A **certified** copy of the foreign priority document, Germany 10308755.9, filed 02/28/2003, has not been received.

2. Claims 1, 2, 4-9, 24, and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Support has not been provided for claiming that the mixing of the first component and second component in the mixing nozzle is continuous. Contrary to applicants' arguments, page 12 of the specification states that mixing (step a) and homogenization (step b) may be performed not continuously, but instead in two separate steps. In other words, the "continuously" concept of the invention pertains to performing step a and step b continuously, as opposed to performing step a, itself, continuously.

Furthermore, it cannot be clearly determined what is meant by performing a mixing operation in a mixing nozzle continuously. It would seem that any mixing operation in the mixing nozzle must be, in effect, continuous, since mixing cannot occur if there is no movement through the nozzle. Given this reasonable interpretation, "continuously" fails to further modify or limit the claim.

3. Claims 1, 2, 4-9, 24, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Given the rationale set forth within the last subparagraph of paragraph 2, it cannot be determined how or to what extent the "continuously" language further modifies or limits the subject matter of claim 1.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 4-9, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/05860 in view of Kahl et al. ('518) or Bock et al. ('419) or Burke, Jr. ('698 or '700 or '701) or Khungar et al. ('142) or Dong et al. (US 2001/0012872).

WO 01/05860 discloses the continuous production of aqueous two-component polyurethane emulsion coating compositions, wherein the polyisocyanate and polyol are initially mixed in a mixing nozzle upstream of a jet disperser that performs the same function as applicants' homogenizer. See abstract; page 4, lines 9-19; page 5, lines 1-5; and Figure 1.

6. WO 01/05860 is silent regarding applicants' claimed recirculating or recycle feature; however, the use of recycle streams through homogenizers or repeat homogenization to improve dispersions and emulsions was known at the time of invention. This position is supported by the teachings of the secondary references. Kahl et al. disclose the homogenization of two component aqueous polyurethane coating compositions by forcing the aqueous two-component mixture through a jet disperser. Kahl et al. further disclose an embodiment wherein the stream recycles back to be introduced into the jet disperser (homogenizer) again. See Figure 5. The Burke, Jr. references disclose at column 24, the use of homogenizers in combination with recycle to improve such emulsion properties as particle size and particle size distribution. Khungar et al. disclose at column 5, lines 39+ that recirculation through a homogenizer is useful to obtain optimum homogenization of monomer mixes. Dong et al. disclose within paragraph [0015] the use of a recycle loop in combination with homogenization to ensure emulsion stability. Furthermore, both Kahl et al. (column 6, lines 49-52) and Bock et al. (column 5, line 66 through column 6, line 8) disclose the use of homogenizers in series, which is considered to be analogous to using a recycle stream. Therefore, given these additional teachings, the position is taken that it would have been obvious to practice the method of WO 01/05860 using a recycle stream to reintroduce the composition into the homogenizer, so as to obtain improved dispersions. Furthermore, though the references fail to disclose applicants' claimed flow rates and gear pumps, the position is taken that the selection of such conditions and equipment amounts to the obvious selection and optimization of conventional chemical engineering practices and equipment.

7. Applicants' arguments and amendments have been carefully considered, and the rejection has been modified accordingly. Furthermore, applicants' arguments with respect to the recycle disclosure of Kahl et al. are not well taken. Applicants' remarks are considered to be immaterial, since the arguments are not commensurate in scope with the claims. Arguments with respect to an applicator are without merit, since the instant claims are silent regarding an applicator. The instant claims merely require production of the emulsion, not its application. In summation, despite applicants' statements, Kahl et al. clearly provide for the use of recycle through the homogenizer in the production of a two-component coating. Furthermore, applicants' arguments concerning the use of homogenizers in series and the associated pressure drop are not well taken. Despite applicants' arguments, applicants have failed to establish that the recycle step as claimed is not analogous to the use of homogenizers in series. As evidenced by Kahl et al. at column 2, line 63 through column 3, line 4, one of ordinary skill would be apprised of how to deal with the pressure drop. Furthermore, applicants' arguments are not commensurate in scope with the claims; because the claims, containing recycle, contain no clear limitations that patentably distinguish the instant system from one employing homogenizers in series.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent
July 24, 2006